

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently amended):** A method for describing the content of a data frame present on a communications network having a predetermined physical layer protocol, the method comprising the following steps:

providing a protocol definition file, the protocol definition file including: a first definition construct that defines the format of a data frame that is structured in accordance with the requirements of the predetermined physical layer protocol, and a second definition construct that defines a plurality of message protocol types;

storing the protocol definition file within a protocol database;

capturing a data frame present on the communications network;

~~identifying~~ ascertaining whether at least one protocol type of at least one message contained within the data frame from the plurality of message protocol types is defined by at least one of the plurality of message protocol types in the second definition construct;

providing a user with a protocol editor for creating a new message protocol type in the protocol definition file if at least one protocol type of at least one message contained within the data frame from the plurality of message protocol types is not defined by at least one of the plurality of message protocol types in the second definition construct; and

providing ~~a description of~~ the content of the captured data frame with descriptions of the content of the captured data frame based upon the definitions of the first and the second definition constructs.

2. (New): The method of claim 1, wherein providing a user with a protocol editor comprises providing the user with a text editor.

3. (New): The method of claim 1, wherein providing a user with a protocol editor comprises providing the user with a graphical user interface that includes constructs corresponding to manipulatable fields and options.

4. (New): The method of claim 1, wherein providing the content of the captured data frame comprises displaying graphical controls to allow the user to select what portions of the content of the captured data are displayed.

5. (New): A method for describing the content of a data frame present on a communications network, the method comprising the following steps:

identifying a physical layer protocol;

ascertaining whether a corresponding protocol definition file exists for the identified physical layer protocol;

providing a user with a protocol editor for creating a new protocol definition file for the identified physical layer protocol if a corresponding protocol definition file does not exist for the identified physical layer protocol;

obtaining the data frame from the communications network;

interpreting the data frame according to at least one of the existing protocol definition file and the created protocol definition file; and

displaying frame contents and descriptions of the frame contents in accordance with at least one of the existing protocol definition file and the created protocol definition file.

6. **(New):** The method of claim 5, wherein identifying a physical layer protocol comprises receiving information from a network interface module of a network analyzer.

7. **(New):** The method of claim 5, further comprising loading at least one of the existing protocol definition file and the created protocol definition file into a database for use by a network analyzer.

8. **(New):** The method of claim 5, wherein providing a user with a protocol editor comprises providing a user with a text editor.

9. **(New):** The method of claim 5, wherein providing a user with a protocol editor comprises providing a user with a graphical user interface that includes constructs corresponding to manipulatable fields and options.

10. **(New):** The method of claim 5, wherein displaying frame contents and descriptions of the frame contents comprises providing a high level description to a user to describe various fields of the frame and its contents.

11. **(New):** The method of claim 5, wherein displaying frame contents and descriptions of the frame contents comprises displaying graphical controls to allow the user to select what portions the frame contents are displayed.

12. **(New):** The method of claim 5, further comprising checking for additional frames on the communication network and displaying the additional frame contents and descriptions of the additional frame contents.

13. **(New):** In a computer system having a graphical user interface including a video display device and a user input device, method of creating and/or editing protocol definition files used for displaying frame contents from a network with descriptions of the data frame contents, the method comprising:

displaying a graphical representation of one or more base constructs;

receiving a user selection of one of the one or more base constructs and displaying structures belonging to a hierarchy under the selected base construct;

receiving a user selection of one of the structures and displaying manipulatable fields and options for describing characteristics of the selected structure;

receiving user input in the fields and options describing characteristics of the selected structure; and

building a protocol definition file, that defines the organization of a data frame physical layer protocol, from the user inputs.

14. **(New):** The method of claim 13, further comprising:

capturing a data frame from a network; and

interpreting the data frame according to the protocol definition file.

15. **(New):** The method of claim 14, further comprising displaying frame contents and descriptions of the frame contents in accordance with the protocol definition file.

16. **(New):** The method of claim 13, wherein the one or more base constructs comprise constructs for describing at least one of structures, fields, interpretations, padding, alternatives and arrays.

17. **(New):** The method of claim 13, wherein the one or more base constructs comprise constructs for describing at least one of switches and groups.

18. **(New):** The method of claim 13, further comprising receiving a description user input with a high-level description of the selected structure.

19. **(New):** The method of claim 13, wherein displaying a graphical representation of one or more base constructs comprises displaying one or more base constructs with characteristics previously described for structures in the constructs.

20. **(New):** The method of claim 13, wherein receiving user input in the fields and options describing characteristics of the selected structure comprises receiving at least one of a short name with a unique identifier for the selected structure , a long name that provides a high-level description of the structure, a length that specifies the length of a structure, and a display flag that determines if data from a data frame corresponding to the structure will be displayed.